

Coaxial Frequency Mixer

Level 17 (LO Power +17 dBm) 0.15 to 400 MHz

ZP-3H+ ZP-3H



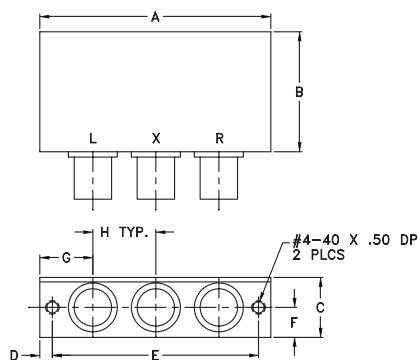
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

LO	L
RF	R
IF	X

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	wt
2.31	1.20	.60	.125	2.062	.30	.53	.63	grams
58.67	30.48	15.24	3.18	52.37	7.62	13.46	16.00	75.0

Features

- low conversion loss, 5.0 dB typ.
- high L-R isolation, 50 dB typ., L-I, 45 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- defense & federal communications
- instrumentation

BNC version shown
CASE STYLE: GG60

Connectors	Model	Price	Qty.
BNC	ZP-3H+	\$45.95 ea.	(1-9)
SMA	ZP-3H-S(+)	\$50.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)												
		L	M	U	L	M	U										
LO/RF f_L-f_U	Mid-Band m \bar{X} σ Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.								
0.15-400	DC-400	5.0	0.33	7.0	8.0	60	50	50	35	40	30	60	40	45	25	35	20

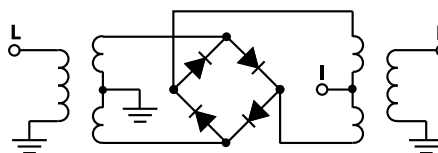
1 dB COMP.: +14 dBm typ.

L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]
m = mid band [$2f_L$ to $f_U/2$]

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	VSWR RF Port (:1)	Frequency (MHz)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO Port (:1)	
							LO
0.15	30.15	5.73	1.50	10.00	82.56	73.10	1.50
0.30	30.30	5.50	1.42	20.00	77.94	72.84	1.49
0.50	30.50	5.40	1.41	40.00	73.33	71.28	1.46
0.75	30.75	5.32	1.41	50.00	71.91	69.09	1.49
1.00	31.00	5.29	1.41	68.00	70.74	64.21	1.48
2.80	32.80	5.15	1.42	86.00	70.55	58.19	1.45
10.00	40.00	5.07	1.36	104.00	68.91	54.46	1.47
20.00	50.00	5.01	1.35	122.00	69.27	51.05	1.48
38.00	68.00	4.98	1.35	140.00	65.14	48.62	1.50
56.00	86.00	4.96	1.29	176.00	69.38	45.57	1.52
110.00	140.00	5.08	1.26	212.00	58.50	42.60	1.55
128.00	158.00	5.07	1.25	230.00	54.52	41.38	1.56
164.00	194.00	5.10	1.19	255.00	55.28	41.47	1.61
200.00	230.00	5.24	1.16	280.00	56.41	41.92	1.60
250.00	280.00	5.41	1.11	305.00	51.98	40.69	1.64
300.00	330.00	5.43	1.00	330.00	48.01	38.86	1.66
325.00	355.00	5.40	1.05	355.00	49.07	36.77	1.65
350.00	380.00	5.46	1.08	380.00	53.89	34.86	1.74
375.00	405.00	5.63	1.15	405.00	51.11	33.11	1.90
400.00	430.00	6.10	1.28	430.00	47.28	33.20	1.89

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp.

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Performance Charts

